



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,356	08/11/2006	Max Peter Seiler	PN/4-33177A	8929
75074	7590	03/30/2009	EXAMINER	
NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC. 220 MASSACHUSETTS AVENUE CAMBRIDGE, MA 02139			RAHMANI, NILOOFAR	
ART UNIT		PAPER NUMBER		
1625				
MAIL DATE		DELIVERY MODE		
03/30/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/556,356	Applicant(s) SEILER, MAX PETER
	Examiner NILOOFAR RAHMANI	Art Unit 1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on remark dated on 12/18/2008.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,2,5 and 9-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,5,9-15 and 17 is/are rejected.

7) Claim(s) 2 and 16 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/18/2008

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application

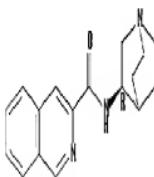
6) Other: _____

DETAILED ACTION

1. Claims 1-2, 5, 9-17 are currently pending and claims 3-4, 6-8 are cancelled in the instant application.
2. The rejection of claim 8 under 112, first paragraph is withdrawn in view of applicant's amendment.
3. The rejection of claims 1, 5, 9-11, 15 and 17 over Corbett et al., US 2005/0245504 under 35 U.S.C. 102(e) is maintained for the reason of record. Applicants argue that the provisional relied upon by Corbett et al discloses a broad genus of compounds and some specific compounds, but fails to disclose either of the 2 compounds cited by the examiner. It is examiner position that the provisional specification has the same number pages as the US specification. Therefore, the compounds form the STN search should be disclosed in the provisional. The compound

RN 711085-68-6

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-



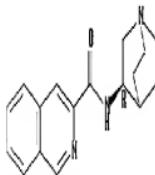
, which these compounds may be in the form of pharmaceutical salts or compositions, may be in pure enantiomeric form or racemic mixtures, and are

useful in pharmaceuticals to treat disease or conditions in which $\alpha 7$ is known to be involved. Therefore, the instant claim is anticipated by Corbett et al.

4. The rejection of claims 1, 5, 9-11, 15 and 17 over Rogers et al., US 2005/0107425 under 35 U.S.C. 102(e) is maintained for the reason of record. Applicants argue that the provisional relied upon by Rogers et al discloses a broad genus of compounds and some specific compounds, but fails to disclose either of the 2 compounds cited by the examiner. It is examiner position that the provisional specification has the same number pages as the US specification. Therefore, the compounds form the STN search should be disclosed in the provisional. The compound

RN 711085-68-6

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-



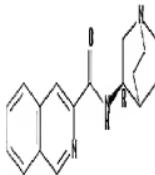
, which these compounds may be in the form of pharmaceutical salts or compositions, may be in pure enantiomeric form or racemic mixtures, and are useful in pharmaceuticals to treat disease or conditions in which $\alpha 7$ is known to be involved. Therefore, the instant claim is anticipated by Corbett et al.

5. The rejection of claims 1, 5, 9-11, 15 and 17 over Groppi et al., US 2006/0019984 under 35 U.S.C. 102(e) is maintained for the reason of record.

Applicants argue that the provisional relied upon by Groppi et al discloses a broad genus of compounds and some specific compounds, but fails to disclose either of the 2 compounds cited by the examiner. It is examiner position that the provisional specification has the same number pages as the US specification. Therefore, the compounds form the STN search should be disclosed in the provisional. The compound

RN 711085-68-6

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-



, which these compounds may be in the form of pharmaceutical salts or compositions, may be in pure enantiomeric form or racemic mixtures, and are useful in pharmaceuticals to treat disease or conditions in which $\alpha 7$ is known to be involved. Therefore, the instant claim is anticipated by Corbett et al.

6. *New Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S.

1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

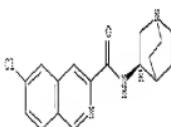
Claims 1, 5, 9-15 and 17 are rejected under 103(a) as being unpatentable over Jacobsen et al., US 7,001,900.

Determination of the scope and content of the prior art (MPEP §2141.01)

Jacobsen et al. disclosed analogous compounds, which from the STN search are

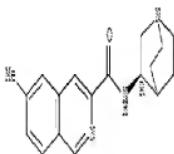
RN 590369-86-1

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-chloro-



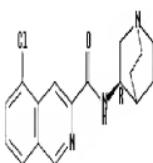
RN 590370-42-6

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-methyl-



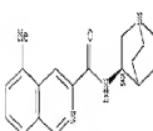
RN 590370-46-0

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-5-chloro-



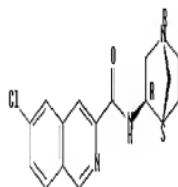
RN 590370-47-1

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-5-methyl-



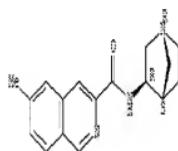
RN 590371-03-2

CN 3-Isoquinolinecarboxamide, N-(1R,3R,4S)-1-azabicyclo[2.2.1]hept-3-yl-6- chloro-



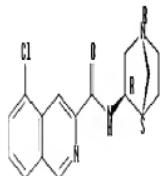
RN 590371-04-3

CN 3-Isoquinolinecarboxamide, N-(1R,3R,4S)-1-azabicyclo[2.2.1]hept-3-yl-6- methyl-



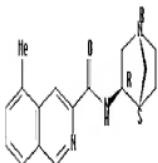
RN 590371-08-7

CN 3-Isoquinolinecarboxamide, N-(1R,3R,4S)-1-azabicyclo[2.2.1]hept-3-yl-5-chloro-



RN 590371-09-8

CN 3-Isoquinolinecarboxamide, N-(1R,3R,4S)-1-azabicyclo[2.2.1]hept-3-yl-5- methyl-



Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the instant claim and the prior art compound is that the instant claim replaces one methyl of the prior art compound with a H or one halogen with another halogen.

Finding of *prima facia* obviousness-rational and motivation (MPEP §2142.2143)

One having ordinary skill in the art would be motivated to modify the compounds of Jacobsen et al. to obtain the instantly claimed compounds. Because "F" and "Cl" are both halogen. Changing one halogen to another halogen is within skill in the art.

A compound that differs only in molecular arrangement from the compounds disclosed in the prior art and which for which no unexpected properties of this compound are disclosed in the specification is unpatentable, *Ex parte KRUEGER AND HAYES*, 121 USPQ 420, *In re NORRIS*, 84 USPQ 458, *In re Hass* 60 USPQ 552, which found a *prima facia* case of obviousness of 1-chloro-1-nitrobutane over 1-chloro-1-nitroisobutane taught in the prior art, *Ex parte Uillyot*, 103 USPQ 185, which found a *prima facia* case of obviousness of 2-oxo-quinolines over a 1-oxo-isoquinoline taught in the prior art, *In re FINLEY*, 81

USPQ 383 , which found a *prima facie* case of obviousness of 2-ethyl hexyl salicylate over octyl salicylate taught in the prior art.

Compounds that differ only by the presence or absence of an extra methylene group or two are homologues. Homologues are of such close structural similarity that the disclosure of a compound renders *prima facie* obvious its homologues. The homologue is expected to be prepared by the same method and to have generally the same properties. This expectation is then deemed the motivation for preparing homologues. Of course, these presumptions are rebuttable by the showing of unexpected effects, but initially, the homologues are obvious even in the absence of a specific teaching to add or remove methylene groups. See *In re Wood*, 199 USPQ 137; *In re Hoke*, 195 USPQ 148, *In re Lohr*, 137 USPQ 548; *In re Magerlein*, 202 USPQ 473; *In re Wiechert*, 152 USPQ 249; *Ex parte Henkel*, 130 USPQ 474; *In re Fauque*, 121 USPQ; *In re Druey*, 138 USPQ 39.

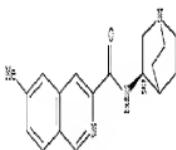
Also note compounds in the prior art, which only differ from the instant compounds in having a different positional isomer for halogen (positions 6 and 8, respectively). Compounds which differ only in the placement of substituents in a ring system is not absent unexpected results. *In re Jones*, 162 F.2d 638, 74 USPQ 152 (CCPA 1947).

7. Claims 1, 5, 9-15 and 17 are rejected under 103(a) as being unpatentable over Corbett et al., US 2005/0245504.

Corbett et al. disclosed analogous compounds, which from the STN search are

RN 590370-42-6

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-methyl-



Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the instant claim and the prior art compound is that the instant claim replaces one methyl of the prior art compound with a H.

Finding of prima facia obviousness-rational and motivation (MPEP §2142.2143)

One having ordinary skill in the art would be motivated to modify the compounds of Jacobsen et al. to obtain the instantly claimed compounds.

A compound that differs only in molecular arrangement from the compounds disclosed in the prior art and which for which no unexpected properties of this compound are disclosed in the specification is unpatentable, *Ex parte KRUEGER AND HAYES*, 121 USPQ 420, *In re NORRIS*, 84 USPQ 458, *In re Hass* 60 USPQ 552, which found a *prima facia* case of obviousness of 1-chloro-1-nitrobutane over 1-chloro-1-nitroisobutane taught in the prior art, *Ex parte Uillyot*, 103 USPQ 185, which found a *prima facia* case of obviousness of 2-oxo-quinolines over a 1-oxo-isoquinoline taught in the prior art, *In re FINLEY*, 81

USPQ 383 , which found a *prima facie* case of obviousness of 2-ethyl hexyl salicylate over octyl salicylate taught in the prior art.

Compounds that differ only by the presence or absence of an extra methylene group or two are homologues. Homologues are of such close structural similarity that the disclosure of a compound renders *prima facie* obvious its homologues. The homologue is expected to be prepared by the same method and to have generally the same properties. This expectation is then deemed the motivation for preparing homologues. Of course, these presumptions are rebuttable by the showing of unexpected effects, but initially, the homologues are obvious even in the absence of a specific teaching to add or remove methylene groups. See *In re Wood*, 199 USPQ 137; *In re Hoke*, 195 USPQ 148, *In re Lohr*, 137 USPQ 548; *In re Magerlein*, 202 USPQ 473; *In re Wiechert*, 152 USPQ 249; *Ex parte Henkel*, 130 USPQ 474; *In re Fauque*, 121 USPQ; *In re Druey*, 138 USPQ 39.

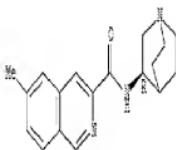
8. Claims 1, 5, 9-15 and 17 are rejected under 103(a) as being unpatentable over Rogers et al., US 2005/0107425.

Determination of the scope and content of the prior art (MPEP §2141.01)

Rogers et al. disclosed analogous compounds, which from the STN search are

RN 590370-42-6

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-methyl-



Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the instant claim and the prior art compound is that the instant claim replaces one methyl of the prior art compound with a H.

Finding of prima facia obviousness-rational and motivation (MPEP §2142.2143)

One having ordinary skill in the art would be motivated to modify the compounds of Rogers et al. to obtain the instantly claimed compounds.

A compound that differs only in molecular arrangement from the compounds disclosed in the prior art and which for which no unexpected properties of this compound are disclosed in the specification is unpatentable, *Ex parte KRUEGER AND HAYES*, 121 USPQ 420, *In re NORRIS*, 84 USPQ 458, *In re Hass* 60 USPQ 552, which found a *prima facia* case of obviousness of 1-chloro-1-nitrobutane over 1-chloro-1-nitroisobutane taught in the prior art, *Ex parte Uillyot*, 103 USPQ 185, which found a *prima facia* case of obviousness of 2-oxo-quinolines over a 1-oxo-isoquinoline taught in the prior art, *In re FINLEY*, 81 USPQ 383, which found a *prima facia* case of obviousness of 2-ethyl hexyl salicylate over octyl salicylate taught in the prior art.

Compounds that differ only by the presence or absence of an extra methylene group or two are homologues. Homologues are of such close structural similarity that the disclosure of a compound renders *prima facie* obvious its homologues. The homologue is expected to be prepared by the same method and to have generally the same properties. This expectation is then deemed the motivation for preparing homologues. Of course, these presumptions are rebuttable by the showing of unexpected effects, but initially, the homologues are obvious even in the absence of a specific teaching to add or remove methylene groups. See *In re Wood*, 199 USPQ 137; *In re Hoke*, 195 USPQ 148, *In re Lohr*, 137 USPQ 548; *In re Magerlein*, 202 USPQ 473; *In re Wiechert*, 152 USPQ 249; *Ex parte Henkel*, 130 USPQ 474; *In re Fauque*, 121 USPQ; *In re Druey*, 138 USPQ 39.

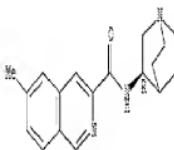
9. Claims 1, 5, 9-15 and 17 are rejected under 103(a) as being unpatentable over Groppi et al., US 2006/0019984.

Determination of the scope and content of the prior art (MPEP §2141.01)

Groppi et al. disclosed analogous compounds, which from the STN search are

RN 590370-42-6

CN 3-Isoquinolinecarboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-methyl-



Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the instant claim and the prior art compound is that the instant claim replaces one methyl of the prior art compound with a H.

Finding of prima facia obviousness-rational and motivation (MPEP §2142.2143)

One having ordinary skill in the art would be motivated to modify the compounds of Groppi et al. to obtain the instantly claimed compounds.

A compound that differs only in molecular arrangement from the compounds disclosed in the prior art and which for which no unexpected properties of this compound are disclosed in the specification is unpatentable, *Ex parte KRUEGER AND HAYES*, 121 USPQ 420, *In re NORRIS*, 84 USPQ 458, *In re Hass* 60 USPQ 552, which found a *prima facia* case of obviousness of 1-chloro-1-nitrobutane over 1-chloro-1-nitroisobutane taught in the prior art, *Ex parte Uillyot*, 103 USPQ 185, which found a *prima facia* case of obviousness of 2-oxo-quinolines over a 1-oxo-isoquinoline taught in the prior art, *In re FINLEY*, 81 USPQ 383, which found a *prima facia* case of obviousness of 2-ethyl hexyl salicylate over octyl salicylate taught in the prior art.

Compounds that differ only by the presence or absence of an extra methylene group or two are homologues. Homologues are of such close structural similarity that the disclosure of a compound renders *prima facie* obvious its homologues. The homologue is expected to be prepared by the same method and to have generally the same properties. This expectation is then deemed the motivation for preparing homologues. Of course, these presumptions are rebuttable by the showing of unexpected effects, but initially, the homologues are obvious even in the absence of a specific teaching to add or remove methylene groups. See *In re Wood*, 199 USPQ 137; *In re Hoke*, 195 USPQ 148, *In re Lohr*, 137 USPQ 548; *In re Magerlein*, 202 USPQ 473; *In re Wiechert*, 152 USPQ 249; *Ex parte Henkel*, 130 USPQ 474; *In re Fauque*, 121 USPQ; *In re Druey*, 138 USPQ 39.

10. The objection of claims 2 and 16 as being dependent upon a cancelled base claims 1 and 15, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims is maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niloofar Rahmani whose telephone number is 571-272-4329. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres, can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/NILOOFAR RAHMANI/

03/25/2009

/D. Margaret Seaman/
Primary Examiner, Art Unit 1625

Application/Control Number: 10/556,356
Art Unit: 1625

Page 17